

## ACCEPTANCE SUMMARY FOR LHC MAGNETS BUILT AT BNL

Magnet D4L102

Date of this summary: September 2, 2004

This document contains a short summary of the acceptance status (in italics, just below), the minutes of the acceptance meeting, and actions taken after the acceptance meeting [in square brackets within the text of the minutes, or as footnotes].

### Acceptance status:

*The BNL Acceptance Committee met on September 2, 2004 and approved the magnet for shipment to CERN. On July 28, R. Ostojic reported that CERN accepted the waiver on QQS locations (M0324). The survey data were sent to D. Missiaen on July 28, 2004. The field quality data have been loaded into the CERN data base. It is planned that the ID card will be sent by Sept. 15.*

### MINUTES OF ACCEPTANCE MEETING

Date of acceptance meeting: September 2, 2004

Present at acceptance meeting: Durnan, Hocker, Jain, Muratore, Pilat, Plate, Porretto, Schmalzle, Wanderer

Quench Data: Muratore showed the quench performance of the magnet. In forced flow, the magnet exceeded the specified current (6.6 kA) on the second quench. It quenched slightly lower in liquid mode but still above the highest operating current (6505 A). The fourth quench was below 6500 A. The reduction in quench current was attributed to residual heat in the warm finger located in the aperture which quenched. (During the previous overnight period, the valve on this warm finger closed, reducing the vacuum and thus increasing the heat load to the magnet above normal conditions.) The magnet operated to 6.4 kA many times during the subsequent magnetic measurement program without quenching, in agreement with attributing the fourth quench to excess heat from the warm finger. (By mid-September, these results will be available at [www.bnl.gov/magnets/LHC\\_Acceptance](http://www.bnl.gov/magnets/LHC_Acceptance) )

Field Quality: Jain showed the warm and cold data from the magnet. (His talk will be at the address given above.) He noted that the magnet was very similar to the other D2 and D4 magnets. It was noted that the measured value of the integral field in the left aperture was adjusted to correct for an obvious error in positioning the measuring coil, as had been done for three previous measurements (slide #8). Pilat approved the magnet's field quality.

Engineering: Escallier reported via email that the magnet met the electrical specifications [1]. Schmalzle and Plate reported that the mechanical construction of the magnet was acceptable.

QA: Hocker reported that the documentation for the magnet was complete and satisfactory to the point needed for shipment.

Safety: Durnan reported that the documentation for the magnet met the safety specifications.

Survey: Schmalzle said that he had reviewed the survey data and found them acceptable.

These notes written by P. Wanderer

[1] email from Escallier to Wanderer, August 27, 2004:

Magnet D4L102 meets all electrical requirements, and is acceptable for shipping.

DR R-1201 has been reviewed, and signed...disposition is use as is.

Cheers, John